



Welcome

MULTI-USE TRAIL MUNICIPAL CLASS
ENVIRONMENTAL ASSESSMENT,
SCHEDULE C



themeadoway.ca

Public Information Centre #3

Purpose

Provide an update on The Meadowway Multi-Use Trail Municipal Class Environmental Assessment, Schedule C (Class EA), and seek feedback on the:

- Evaluation of design concepts for the preferred trail alignment
- Proposed preferred design concepts
- Mitigation measures

The Meadowway is led by Toronto and Region Conservation Authority (TRCA) and Toronto and Region Conservation Foundation in partnership with the City of Toronto, Hydro One and The W. Garfield Weston Foundation.

Format

OPEN HOUSE

6 p.m. - 9 p.m.

**PRESENTATION,
FOLLOWED BY Q&A**

7 p.m.

Stay in Touch!

Stay informed and provide your input at any stage of the process by subscribing to our mailing list or by visiting the website or social media pages!

themeadoway.ca | info@themeadoway.ca



| TheMeadoway

Introducing

Guiding Principles

The six overarching guiding principles are the core elements of The Meadowway vision.



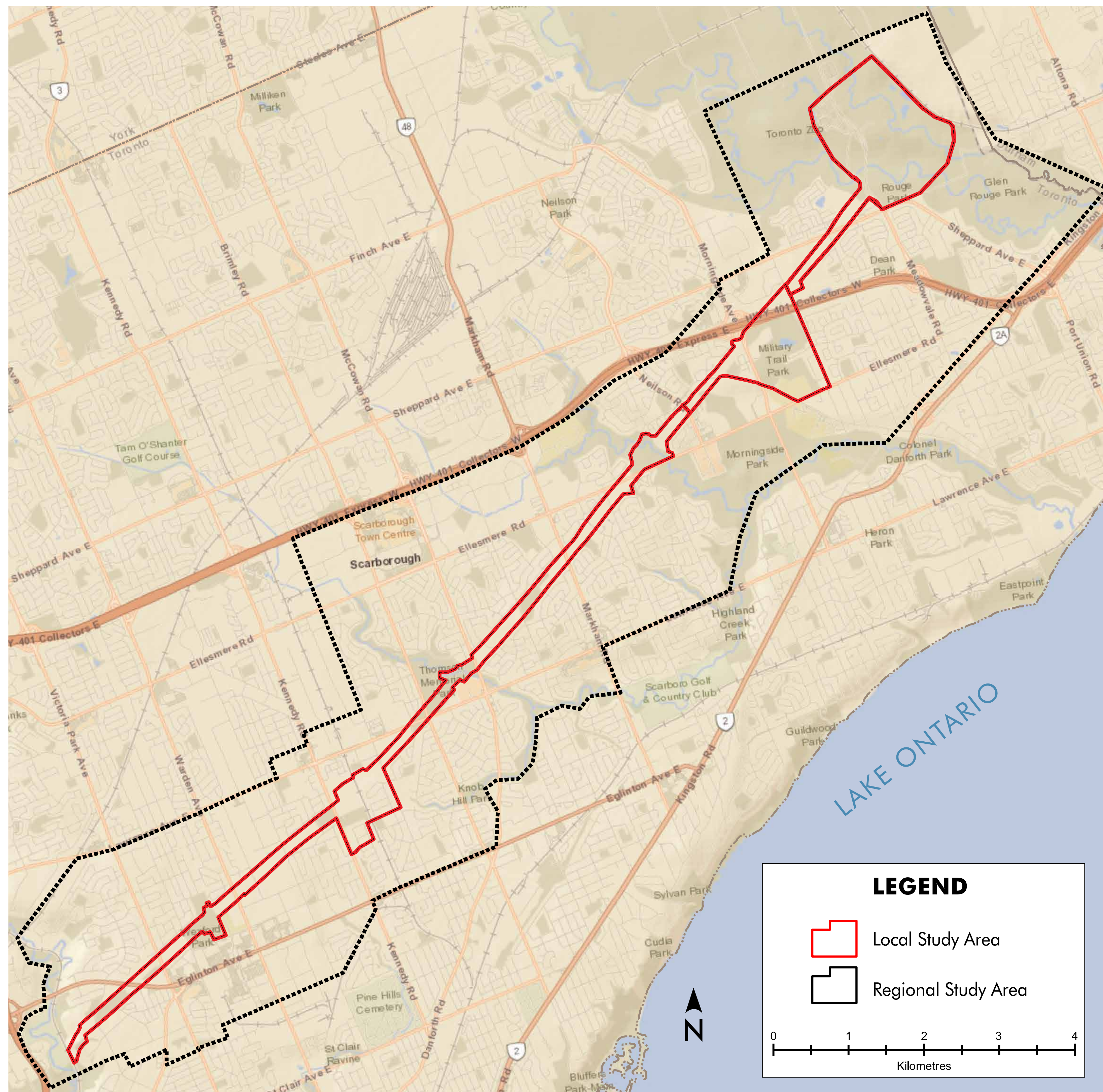
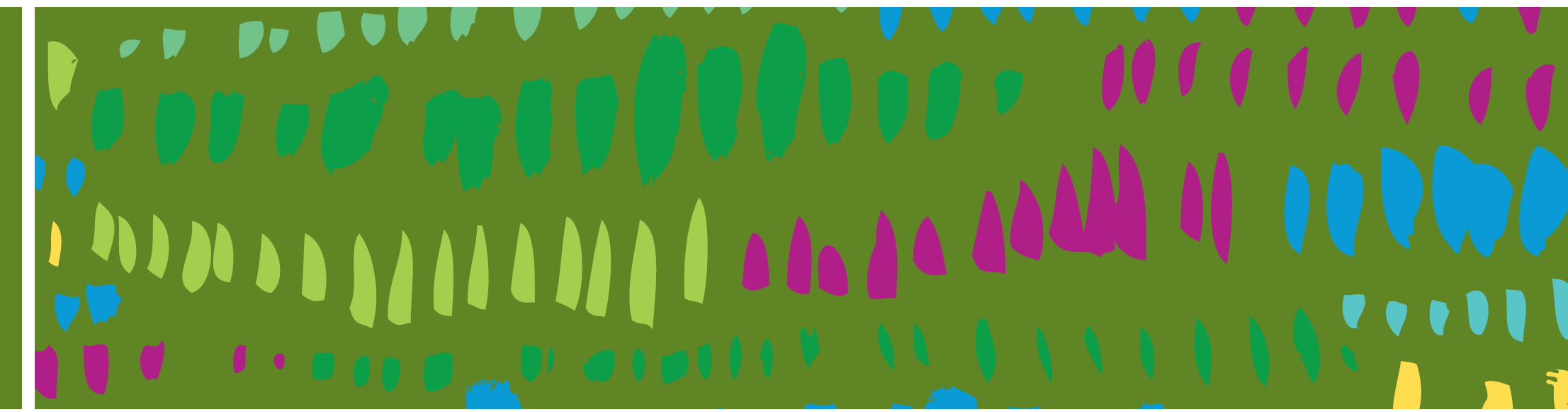
The Meadowway

COMMUNITY POWERED GREEN SPACES

Encompassing over 200 ha and spanning 16 linear km, The Meadowway will transform the existing hydro corridor between the Don River ravine and Rouge National Urban Park into a revitalized green space and a multi-use trail. The Meadowway will connect Scarborough and beyond, enhancing Toronto's cycling network, while providing high-functioning meadow habitat.

The Meadowway is building off the success of the Scarborough Centre Butterfly Trail which restored 40 ha of mown grass into a naturalized meadow habitat and contains a fully accessible multi-use trail!

Where is The Meadowway?



The Meadowway is located within a hydro corridor, owned primarily by the Province of Ontario and managed by Hydro One.

The Meadowway Class EA is divided into two distinct areas of study to assess potential project effects:

- The Local Study Area is the zone where direct effects of the project may occur.
- The Regional Study Area is a larger zone where direct and indirect effects of the project may occur, taking into account the cumulative effects the project may contribute to.



Meadow Habitat 101



Benefits of Meadows in Hydro Corridors:

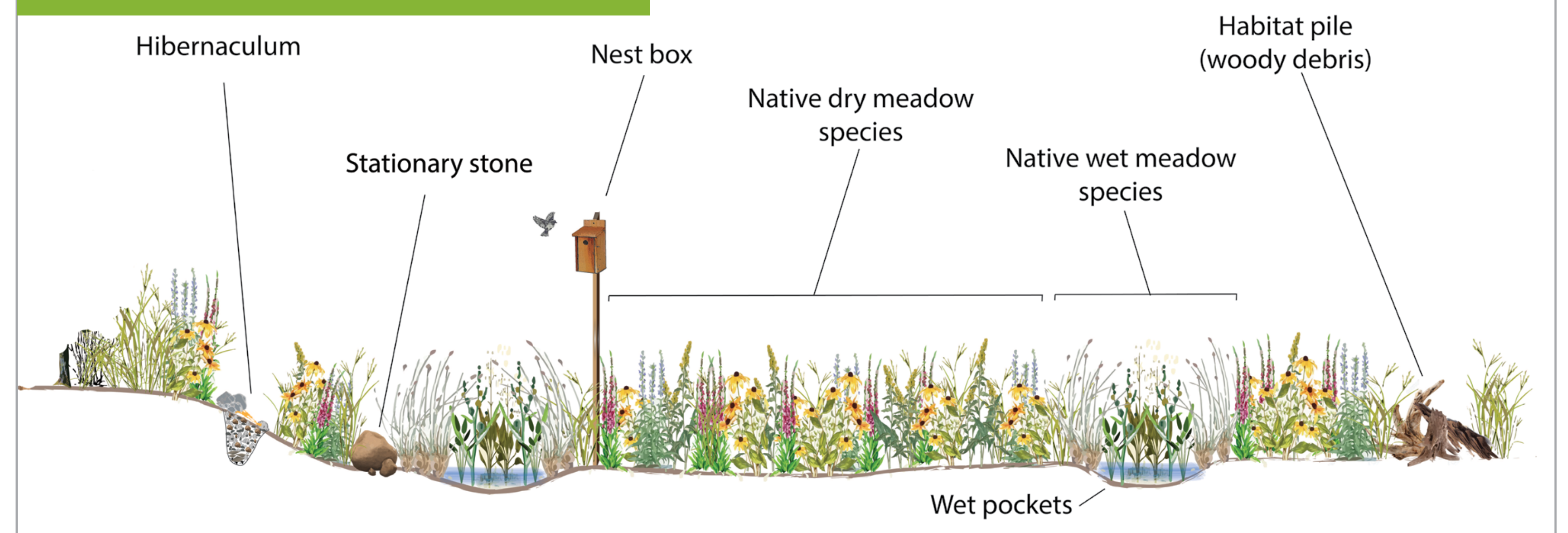
- Improves natural cover of the area increasing wildlife habitat, biodiversity and ecological function
- Increases water infiltration, due to deep root systems, thus reducing soil erosion and compaction
- Improves esthetic appeal to trail and park users with established native flowers and grasses
- Decreases maintenance costs
- Reduces the carbon footprint compared to traditional grass habitat
- Contributes to habitat linkages and safe movement through corridors for wildlife
- Provide opportunities to naturalize areas where existing infrastructure will not allow for woody trees and shrubs

What is a Meadow?

A meadow is a habitat vegetated by wildflowers and grasses with less than 10% woody plants. They are ecologically important, open, sunny areas that attract and support a variety of flora and fauna, providing wildlife with habitat for nesting, food gathering, and shelter. Meadows support an array of wildflowers making them important to pollinating insects, including bees.



Cross Section of Meadow



Meadow Restoration



How are Meadows Restored?

Meadow restoration, from seed to full establishment, can take up to five years! Every meadow is different, so our approach to restoration needs to be tailored to every site.

Year 1 - Typical

Mow, till, cover crop, treat - repeat

Suppress seed source in soil while increasing nutrients on the landscape in preparation for seeding the following year. This process varies by site and previous land use.



Year 2 - Typical

Continue to suppress invasive plants in spring and seed native wildflowers and grasses in late spring

Most wild flowers will stay dormant at this step, but you will see Black Eyed Susan and a few other species come up in late summer/fall.



Year 3 - Typical

Ongoing adaptive management and monitoring to control invasives, infill seeding, and allow wildflowers to take root

Controlling invasive species is critical at this stage to allow meadow species to take root and flourish.



Year 4/5 - Typical

One spring or fall mow every three to five years to remove shrub/tree stems and stimulate growth

Mowing will stimulate plant production, causing a spike in plant growth during the summer growing season. Adaptive management will take place throughout the year.



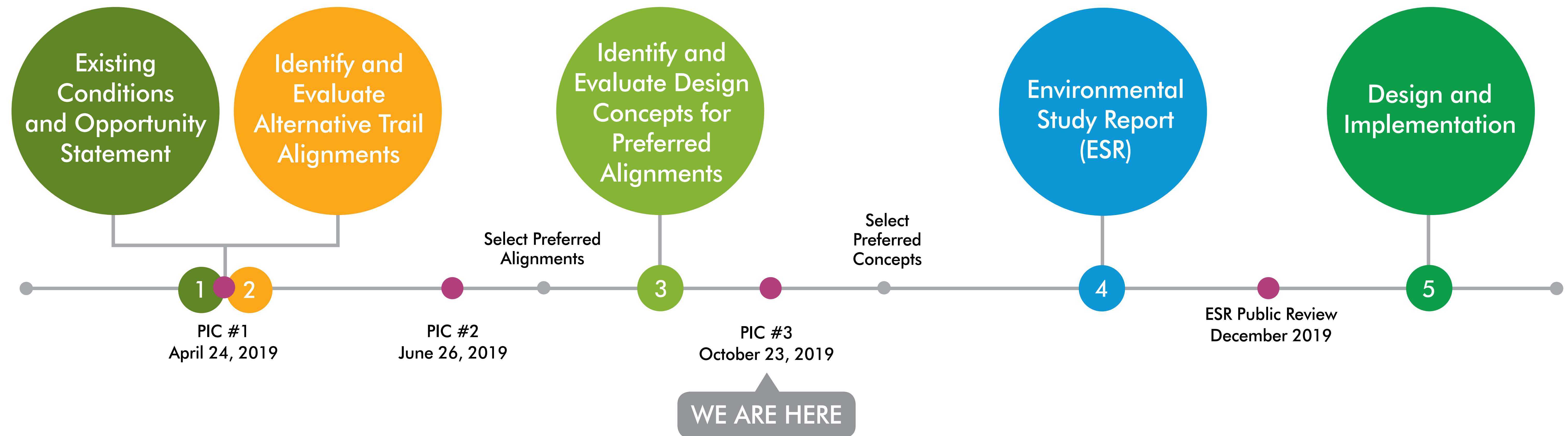
Education, Community Learning & Stewardship



- TRCA is leading the education, community learning and stewardship initiatives for The Meadoway.
- To date, significant milestones have been completed including the development of a three-phase school program and a comprehensive mapping analysis of communities along The Meadoway using Geographic Information Systems.
- Schools along the hydro corridor are participating in The Meadoway! The curriculum linked program includes students growing native plants in their classrooms, class field trips to The Meadoway to support restoration and stewardship activities, and follow-up learning experiences back at school.
- Canadian newcomers will also be engaged through education programs about The Meadoway in nearby English as a Second Language schools.

Project Updates

Municipal Class EA, Schedule C, Process



The following is a sample of what the public expressed interest in at PIC #2.

- Ensuring security and safety for all trail users
- Traffic lights and safe pedestrian crossings
- Continued involvement of schools
- Connections to other trails, cycling networks, and other crossings
- Art installations
- Maintenance of mowed buffer areas

Completing the Multi-Use Trail



The Class EA will focus on the three “incomplete” sections of the 16 km hydro corridor, where no multi-use trail currently exists and where potential pedestrian bridges and road crossings will need to be explored.



Multi-Use Trails

These facilities are separated from the roadway, and support a number of accessible nonmotorized uses such as walking, running, cycling, inline skating, and dog walking, amongst others. The proposed trail will have an asphalt surface and be a minimum of 3.6 m wide where achievable.

Alternative Design Concepts

Alternative design concepts explore different methods for implementing the preferred trail alignment.

For The Meadowway Class EA, alternative design concepts were identified and evaluated for specific areas of the preferred trail alignments as follows:

- **Highland Creek** within Section 5
- **Chartway Boulevard** within Section 6
- **Ellesmere Ravine Water Crossing** within Section 6

It is important to note, all alternative trail alignments and design concepts, as well as all work conducted in the corridor, are subject to Hydro One and Infrastructure Ontario approval.



Evaluating the Alternative Design Concepts

The Meadoway Class EA is following an objectives-based approach to evaluating the alternative design concepts.

Objectives Based Approach

- The objectives and opportunity statement set the framework for the decision-making process.
- Evaluation criteria are created for each objective.
- Each alternative design concept is evaluated based on its ability to meet the project objectives and a preferred design concept is then determined.

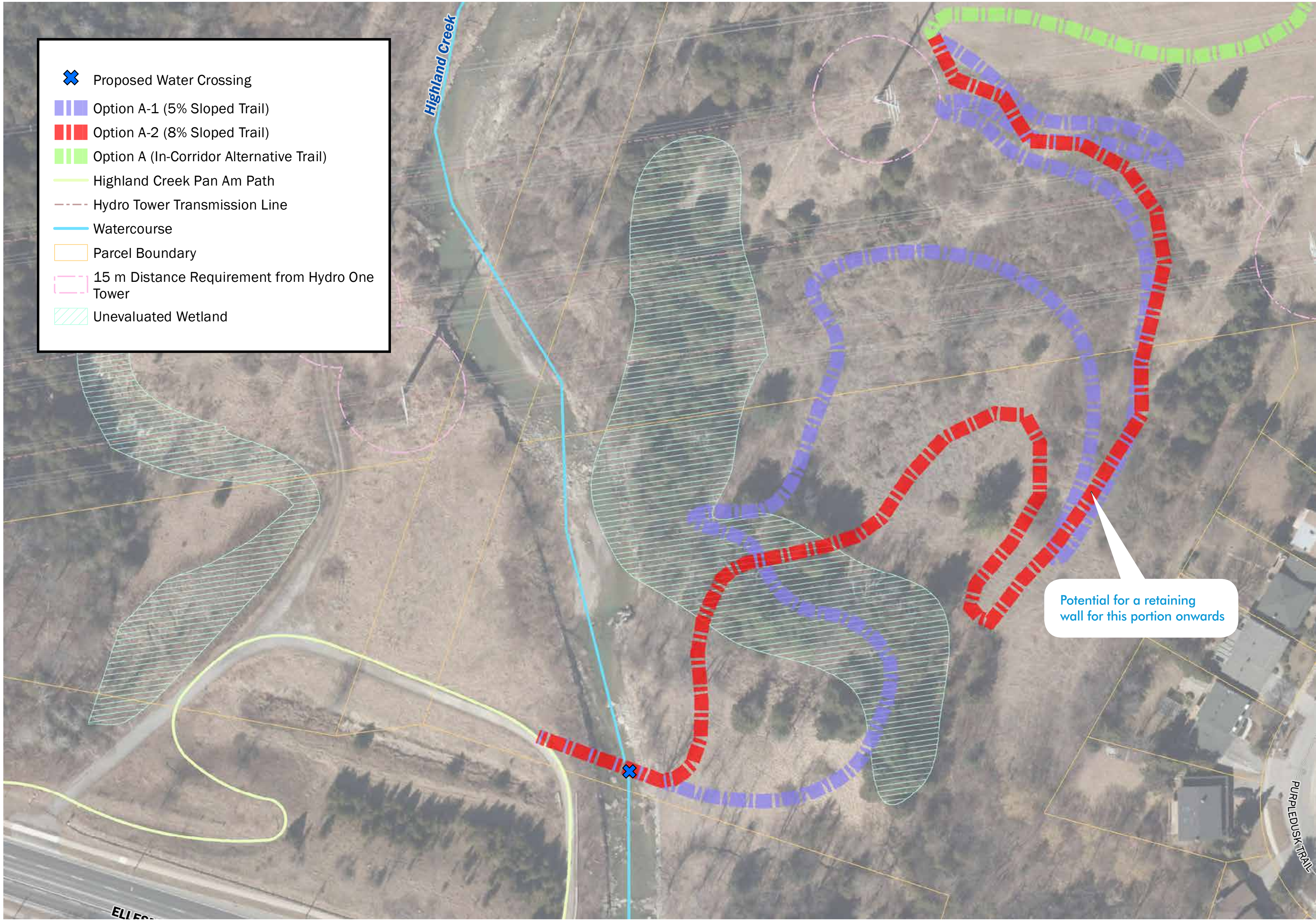
Opportunity Statement

A complete active transportation system linking eastern Toronto to the downtown core is missing from the City of Toronto's existing major multi-use trail network. Opportunities to expand and construct new multi-use trail networks are limited in urbanized environments; however, hydro corridors have the potential to be repurposed as accessible, ecologically diverse greenspaces that permit active trail use. The Meadoway will revitalize and restore the existing hydro corridor and establish a full connection between downtown Toronto and Rouge National Urban Park via an accessible, multi-use trail network.

Objectives	Evaluation Criteria Considerations
Provide a positive user experience	<ul style="list-style-type: none">• Maximizes interaction and connection to urban greenspace (e.g. restored meadow and natural ravine systems in the hydro corridor); provides opportunity for education and stewardship• Establishes a unique and recognizable look-and-feel. Design congruent with the rest of the trail design• Flexibility to address the desired experience of all users
Protect and enhance natural features	<ul style="list-style-type: none">• Capacity to maximize and ensure the success of naturalization/restoration of the meadow• Minimizes impact to watercourses and aquatic habitat• Minimizes potential for impacts to valley slope (e.g., erosion) and vegetation/habitat
Maintain a safe environment for all potential trail users	<ul style="list-style-type: none">• Ability to accommodate emergency response, city and utility maintenance vehicles/activities• Minimizes potential for concern regarding personal safety (e.g., maintenance vehicles, road traffic, intersections, human conflict, safe trail design)• Extent of trail that can meet and/or exceed AAA (all ages and abilities) and Accessibility for Ontarians with Disabilities Act requirements for trail design• Minimizes potential for flood risk to trail users
Be good neighbours	<ul style="list-style-type: none">• Minimizes potential for operation and maintenance impacts on the hydro infrastructure and restored meadow• Minimizes potential for impact on neighbours adjacent to the hydro corridor as well as trail or road users
Be cost effective	<ul style="list-style-type: none">• Constructability (feasibility, level of design, construction and operational complexity)• Capital cost• Operating and maintenance costs

Section 5:

Highland Creek Alignment Design Concepts



OBJECTIVES	OPTION A-1: 5% Grade	OPTION A-2: 8% Grade
Provide a positive user experience	✓	✓
Protect and enhance natural features		✓
Maintain a safe environment for all potential trail users	✓	
Be good neighbours	✓	✓
Be cost effective		✓
PROPOSED PREFERRED		OPTION A-2

✓ = Best meets the project objective

Option A-2 is the Proposed Preferred:

- Minimizes impacts to valley slope and vegetation due to smaller footprint
- Lower capital costs due to simplified construction and maintenance/operation requirements
- Opportunity for restoration and invasive species management
- Accessibility enhancements such as rest nodes, trail signage, and wayfinding



Highland Creek Valley Slope



5% Grade Trail Example



10% Grade Trail Example



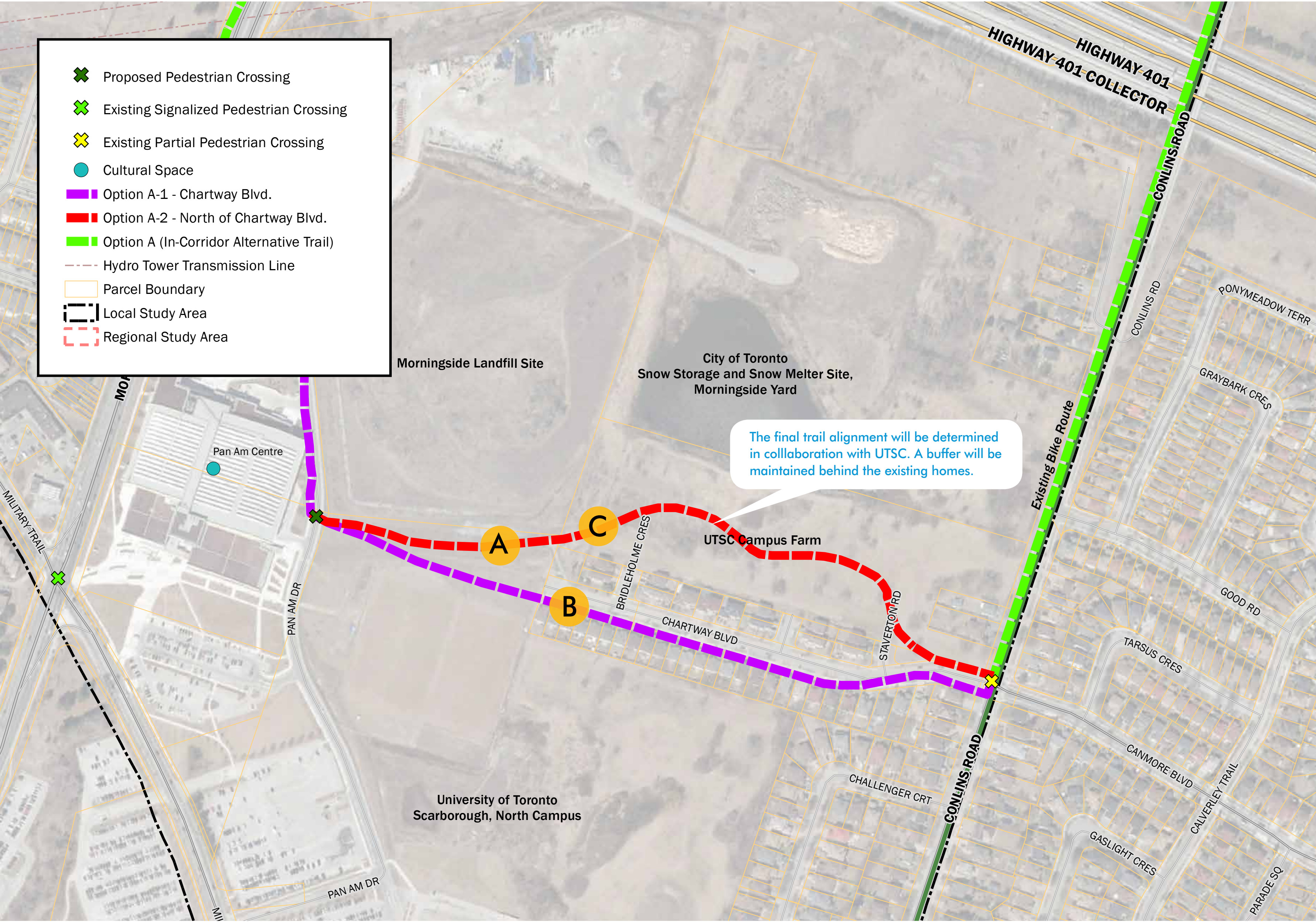
Example of Rest Area in Lower Don

Making Trails Accessible for All Users

While the majority of The Meadoway trails will be relatively flat, the proposed preferred at Highland Creek will need to travel along 8% grades (in some portions) to reduce ecological impacts. To optimize access for all users, trail design will consider: rest areas at key locations, proper signage, maintaining a slope <5% (where feasible), and other safety features.

Section 6:

Chartway Blvd. Alignment Design Concepts



OBJECTIVES	OPTION A-1:	OPTION A-2:
Provide a positive user experience		✓
Protect and enhance natural features	✓	✓
Maintain a safe environment for all potential trail users		✓
Be good neighbours	✓	✓
Be cost effective		
PROPOSED PREFERRED		OPTION A-2

✓ = Best meets the project objective

Option A-2 is the Proposed Preferred:

- Maximizes connection to urban greenspace, as routed north of Chartway Blvd. away from residential properties
- Improves safety by removing users from the residential street
- Increases opportunity for education and community stewardship
- Minimizes potential impacts to adjacent neighbours with vegetated buffer between trail and homes



Option A-2 Facing West



Option A-1 Chartway Blvd. Facing West



Option A-2 Facing East



Existing bike route on Conlins Rd.

Section 6:

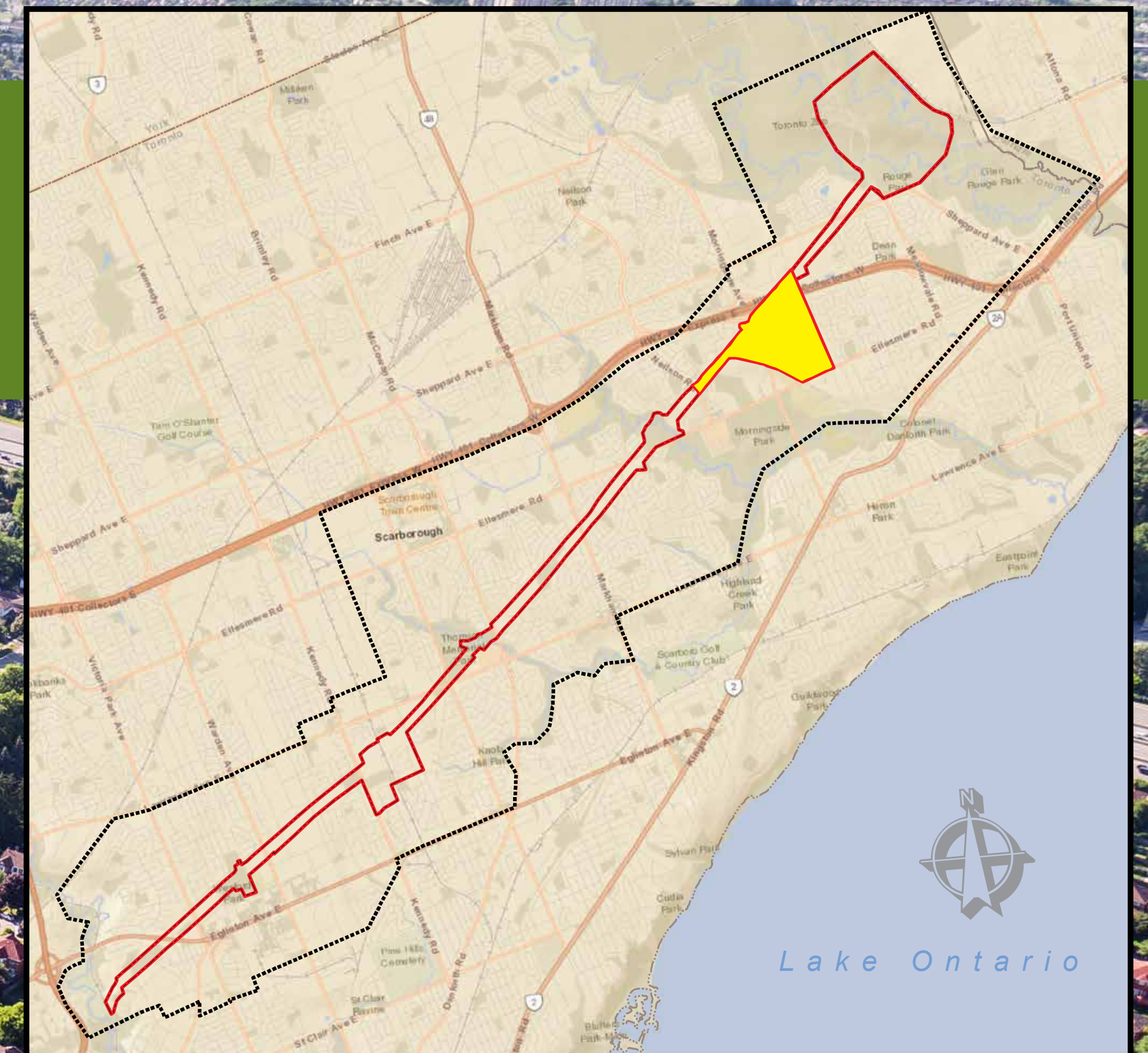
Ellesmere Ravine Pedestrian Water Crossing

Recommended bridge crossing location, to fully span the ravine to avoid placement of a trail within unstable valley and channel. Three bridge design concepts were explored.

Technical challenges related to nearby hydro infrastructure.

Heavily forested, aesthetically pleasing valley system, with opportunities for passive rehabilitation of existing channel.

Steep, confined valley system with active channel movement and excess erosion.



Section 6:

Ellesmere Ravine Pedestrian Water Crossing

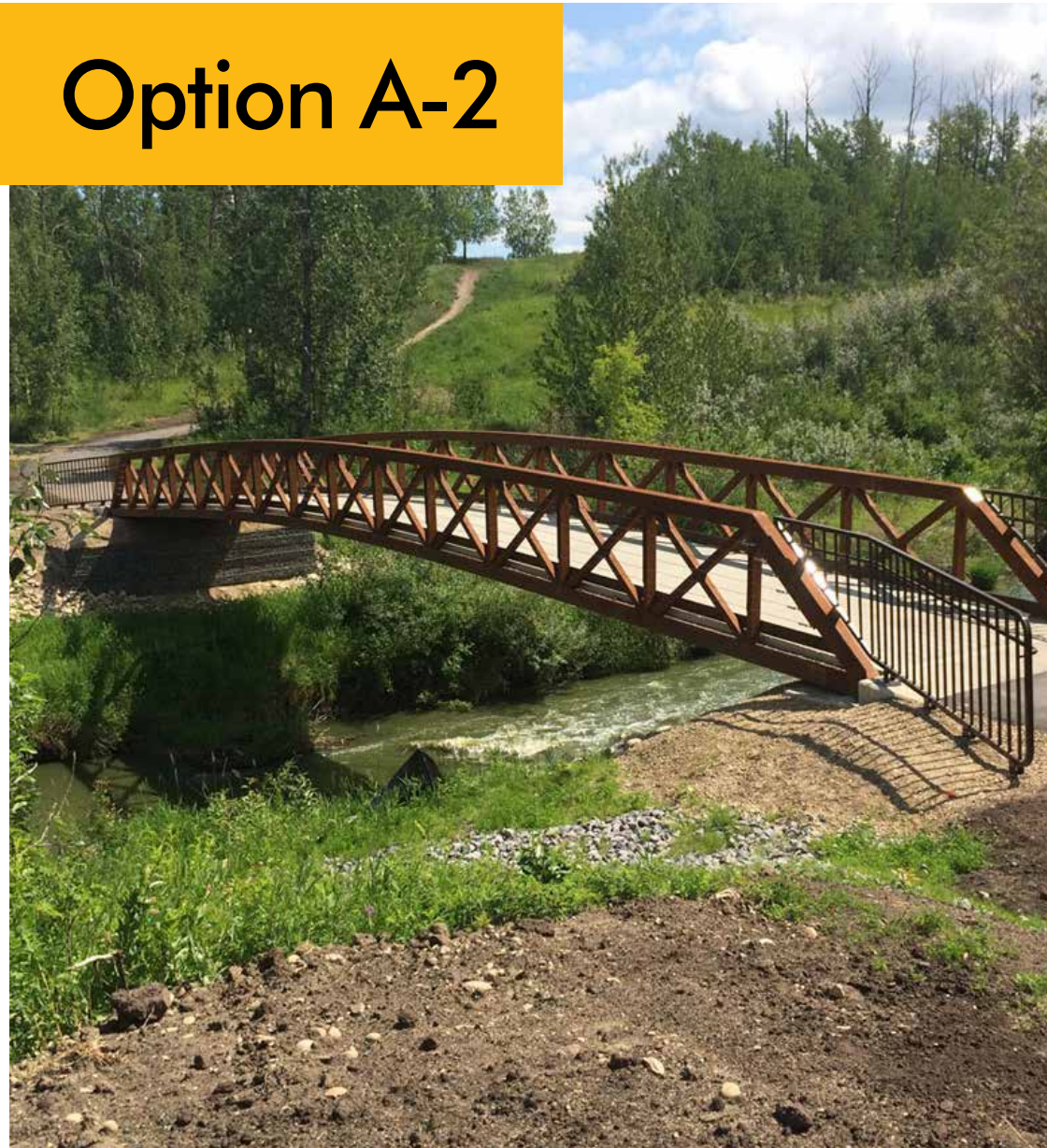
Design Concepts



Stress-Ribbon Bridge

(Source: Michael Goff)

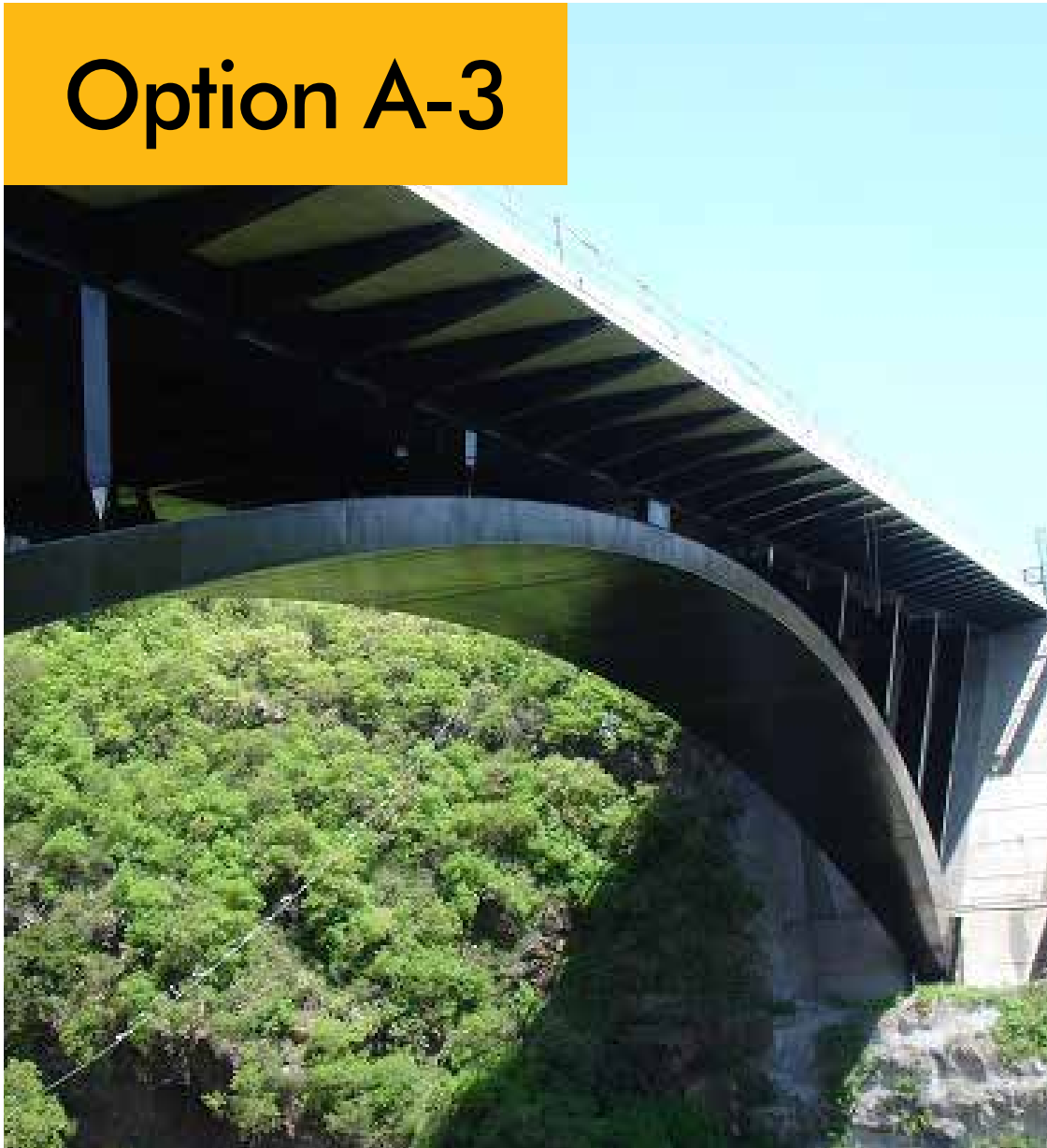
- Single span bridge comprised of suspension cables embedded in a concrete deck
- This complex design is uncommon in Canada, making it an expensive structure to design and build



3-Span Steel Girder Bridge

(Source: Rapid-Span)

- Common bridge type that uses steel or concrete beams (girders) as the means of supporting a deck
- Two concrete piers constructed within the ravine are required in order to provide structural support



Arch Bridge

(Source: Demathieu and Bard)

- Bridge comprised of a structural arch with piers and support structures (abutments) built within the ravine
- Arch bridges provide a unique aesthetic but require larger abutments, increasing costs and impacts to the ravine

OBJECTIVES	OPTION A-1	OPTION A-2	OPTION A-3
Provide a positive user experience	✓		
Protect and enhance natural features	✓	✓	
Maintain a safe environment for all potential trail users		✓	✓
Be good neighbours	✓	✓	
Be cost effective		✓	
PROPOSED PREFERRED		OPTION A-2	

✓ = Best meets the project objective

Option A-2 is the Proposed Preferred:

- Maximizes users’ interaction with ravine via unobstructed design and future opportunities for viewing platforms
- Accessible for all users (compliant with Accessibility for Ontarians with Disabilities Act)
- A common bridge structure simplifies design, construction, maintenance, and overall costs
- Construction of support piers will have short-term impacts to a localized area of ravine habitat

Note: Pictures shown above are examples of bridge types only

Preliminary Mitigation Measures

As with any project of this scale and scope, impacts may occur as a result of implementing the preferred multi-use trail and bridge infrastructure. A critical part of the Class EA process involves identifying all potential short and long-term impacts that may occur before a project is implemented.

Examples of some of the preliminary impacts and associated mitigation measures are listed below.

Environmental Mitigation Measures

- Avoid and limit removal of trees where possible; if trees need to be removed, replanted at a minimum 2:1 ratio
- Species At Risk protection (where necessary)
- Bank stabilization, sediment, and erosion control measures prior to construction

Socio-Cultural Mitigation Measures

- Ensure appropriate safety protocols as they relate to all pedestrian crossings
- Appropriate signage and wayfinding
- Trail designed to meet City of Toronto Accessibility and Multi-use Trail Design Guidelines



Example of sediment control fence being installed



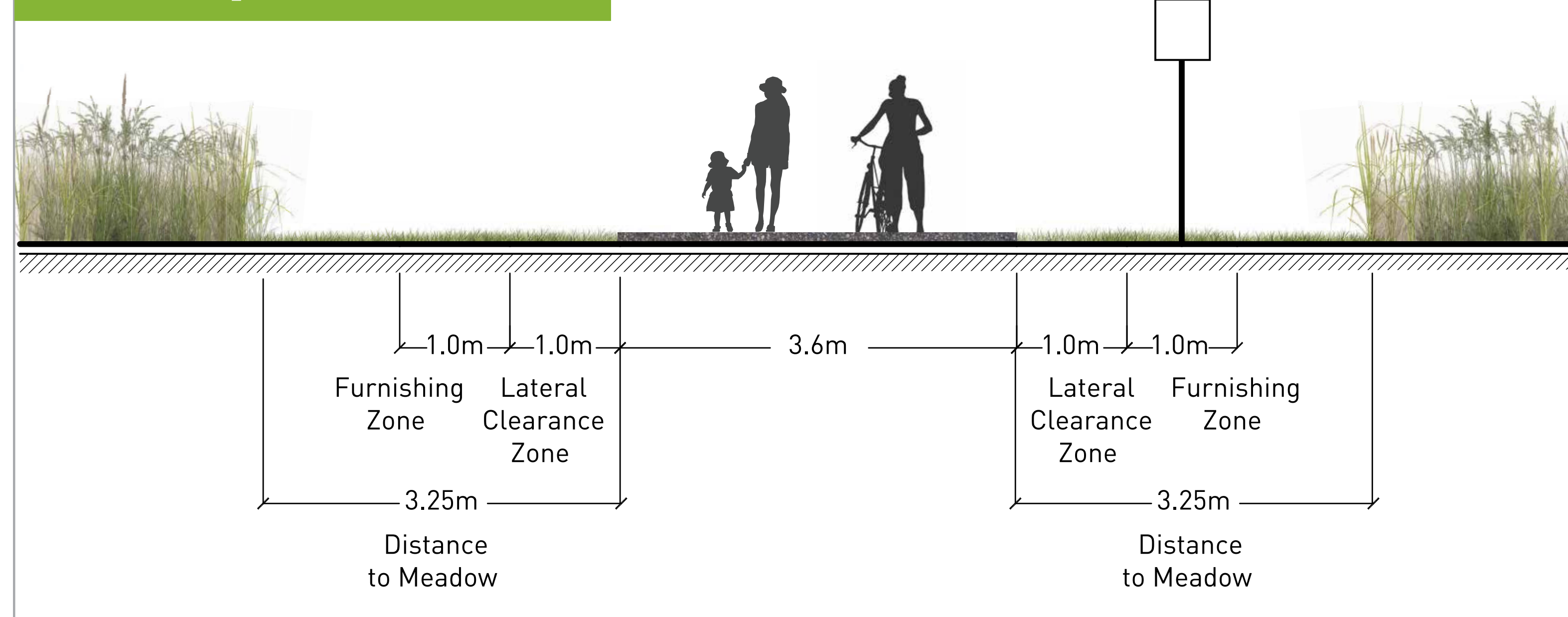
Example of Pedestrian Signage



Example of Tree Planting

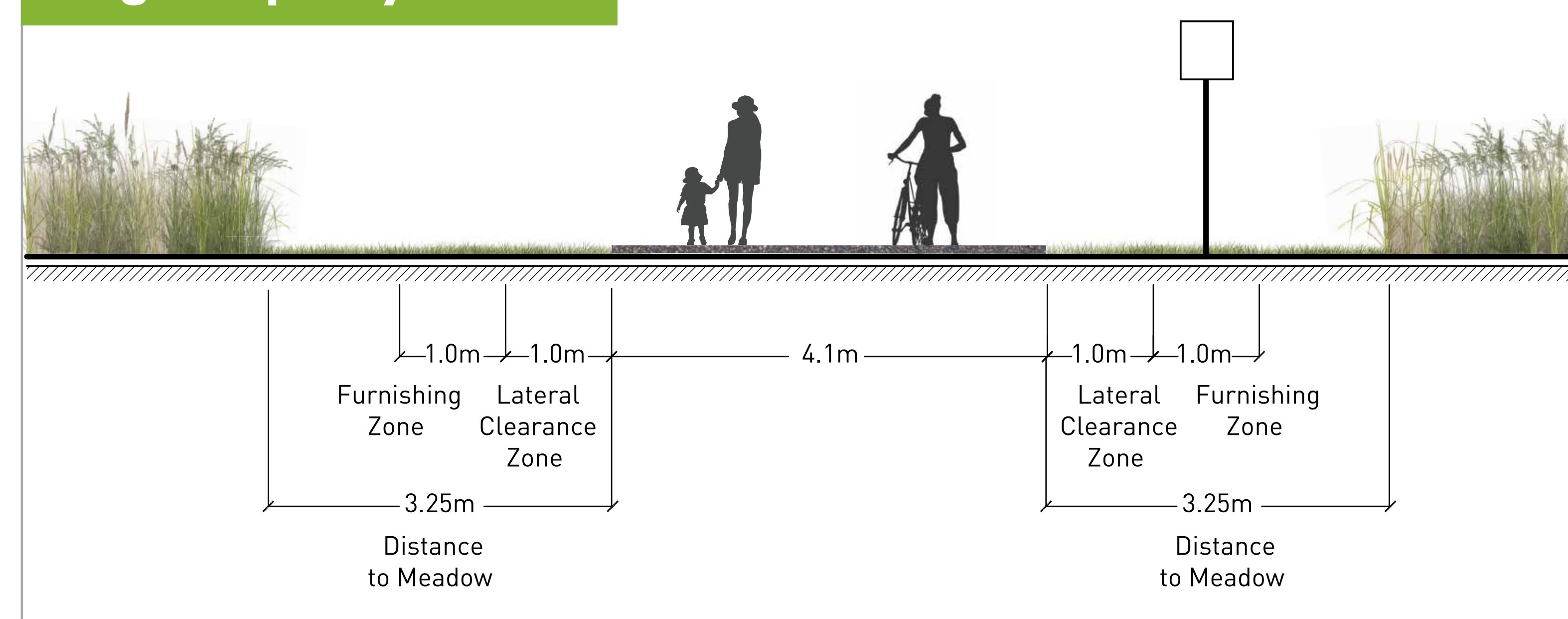
The Meadowway – Trail Design & Configuration

Primary Trail

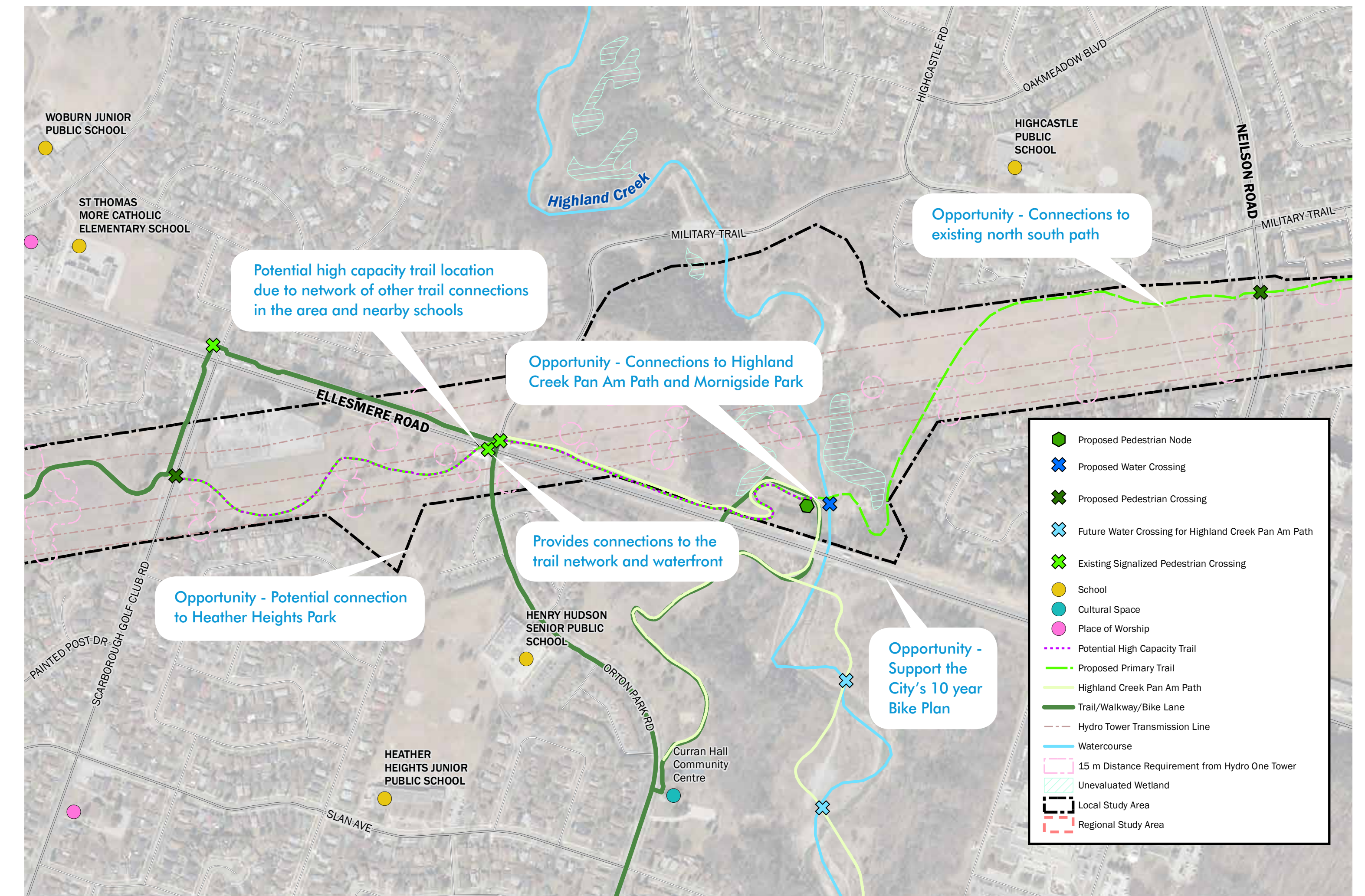


The Meadowway will follow a primary trail configuration, the most common type of multi-use trail in Toronto. These trails support a large catchment area and high user volumes, while still providing ample space for meadow restoration.

High-Capacity Trail



High-capacity trails provide a special function in the trail network and accommodate the highest number of users within the greatest catchment area.



A preliminary assessment of where high-capacity trails may be implemented based on future needs for Section 5. Metrics such as local amenities, number of trail heads, and demonstrated level of use will guide this assessment for the entire Meadowway trail network.



Example of a primary trail: The Meadowway at Benshire Dr.



Example of a high-capacity trail: Martin Goodman Trail looking west near Unwin Ave. and Leslie St. (Source: CycleTO)

Thank You!

We appreciate the time you have taken to learn more about The Meadoway.

Please provide your feedback on this phase (Phase 3) of the Class EA by **November 6, 2019**.

The open house materials will be made available on the project website: **themeadoway.ca**

All comments will be reviewed and considered moving forward.

Contact Us!

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